

NISC Agencies Team Up to Control the Spread of Cactus Moth

Washington, D.C., July 19, 2005 — National Invasive Species Council (NISC) member agencies are gearing up to handle the potential spread of an invasive species: the cactus moth. In a race against time, the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) has joined forces with the USDA's Agricultural Research Service (ARS) and the U.S. Department of the Interior's (DOI) U.S. Geological Survey (USGS), among others, to prevent the westward spread of the cactus moth.

As a natural feeder on prickly pears (*Opuntia* species) the caterpillars of this moth are capable of destroying plants and populations of these plants. If the moth spreads to western U.S. desert ecosystems and Mexico, the heart of prickly pear diversity, 80+ native *Opuntia* species could be affected, threatening important sources of food, medicine, and emergency fodder. In arid regions, the *Opuntia* cacti play key roles in ecosystem processes and soil conservation.

Throughout 2005, researchers are conducting a large-scale sterile insect technique (SIT) validation study on barrier islands in Florida and Alabama to determine whether the cactus moth's western movement can be halted. Believed to be the most promising control method to date, the SIT involves the release of mass-reared sterile moths to limit the reproductive capability of healthy females.

ARS also began distributing the experimental sex lure for use in traps to APHIS and cooperators in Alabama, Arizona, California, Florida, Louisiana, Mississippi, New Mexico, and Texas. APHIS' Plant Protection and Quarantine Program is testing the use of remote sensing technology for finding host plants along coastal areas and barrier islands and is developing software applications to use with handheld units for collecting field monitoring and spatial data to be entered into the National Agricultural Pest Information System (NAPIS).

APHIS, ARS, and USGS are also working with Mississippi State University's Georesources Institute (MSU-GRI) to set up a monitoring network for federal or state managed lands such as wildlife refuges, national parks and seashores, as well as lands managed by non-governmental organizations. Currently, over 400 sentinel sites have been established on public and private lands in the Carolinas and the Gulf Coast Regions for tracking the spread the pest. The ultimate goal is to set up sentinel sites throughout the potential ecological range of the pest—from North Carolina to California.

APHIS has partnered with the state departments of agriculture in the southern United States to survey nurseries and homeowner properties for cacti infested by the cactus moth. These surveys will monitor prickly pear populations on lands managed by U.S. Fish and Wildlife Service (USFWS), National Park Service, Bureau of Land Management (BLM), Forest Service (FS), and Department of Defense (DOD), and also land managed by the Nature Conservancy and master gardeners under USDA's Cooperative State Research, Education and Extension Service (CSREES).

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STAKEHOLDER ANNOUNCEMENT

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So serious a threat is the cactus moth that APHIS and its partners are not only working to control populations already established in the United States, but APHIS also prohibits the movement of cactus plants and cactus parts from Puerto Rico and the Virgin Islands to the mainland to prevent further introductions of the pest into the country. USDA requires that all plants, including cacti, imported into the country for propagation be accompanied by a health certificate and inspected at a USDA APHIS plant inspection station where plant material found to be infested by the cactus moth is fumigated, destroyed, or returned to its country of origin.

The cactus moth, *Cactoblastis cactorum*, proved to be a successful agent for the biological control of invasive *Opuntia* species in Australia in the 1920's and in other places where these cacti are not endemic. The moth is native in the South American countries of Argentina, Brazil, Paraguay and Uruguay.

Prickly pear cacti are popular in residential and commercial landscapes throughout the southwest United States and Mexico. Additionally there is widespread and valuable commercial and traditional use of the plants in Mexico. *Opuntia* production of food for humans and livestock are the major uses. It is estimated that 2% of the value and production from agriculture in Mexico is from *Opuntia*. Widespread invasion by this moth could also lead to extensive destruction of natural *Opuntia* populations that serve as food for wildlife such as deer, javelina, rodents, and coyotes. Birds use prickly pears as nesting sites.

The cactus moth was introduced to the Island of Nevis in 1957, where it later dispersed, either naturally or by unrecorded introductions, to other Caribbean islands including Hispaniola, the Bahamas, Puerto Rico and Cuba. Discovered for the first time in the Florida Keys in 1989, the moth has since eaten its way up the eastern seaboard to Bull Island, S.C., and along the Gulf Coast to a barrier island in Alabama. Moving at a rate of approximately 100 miles annually since 2000, the moth is expected to reach the Texas border by 2007 if no effective control method is implemented.

All the Federal agencies mentioned in this document are members of NISC. NISC is a cabinet level council established by Executive Order in 1999 to provide leadership and to ensure complimentary, cost-efficient and effective federal activities regarding invasive species. Council members include three co-chairs: the Secretaries of the Interior, Agriculture, Commerce; and the Secretaries of State, Defense, Homeland Security, Treasury, Transportation, Health and Human Services, as well as the Administrators of the Environmental Protection Agency, the U.S. Agency for International Development, National Aeronautics and Space Administration and the U.S Trade Representative. More information on NISC is online at <http://www.invasivespecies.gov>. More information on the cactus moth programs can be found online at http://www.aphis.usda.gov/ppq/ep/emerging_pests/cactoblastis/index.html and <http://www.gri.msstate.edu/research/cmdmn/>.

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Note to Stakeholders: Stakeholder announcements and other NISC information are available on the Internet at <http://www.invasivespecies.gov/>. For additional information on this topic, contact Anna Cherry at (202) 354-1891 or anna_cherry@ios.doi.gov

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